## **GREENTHERM 23 LI**

## HWI HarbisonWalker

## **Product Data**

3/13: 0205

Description: 2300°F Insulating Firebrick

Applications: GREENTHERM 23 LI is suited for both backup and hot-face lining duty. Typical applications include ceramic kilns and backup linings in iron channel induction furnaces and sulphur recovery units.

| Chemical Analysis: Approximate (Calcined Basis) |       |
|---|-------|
| Silica (SiO <sub>2</sub> )                      | 44.8% |
| Alumina (Al <sub>2</sub> O <sub>3</sub> )       | 51.0% |
| Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )    | 0.9%  |
| Titania (TiO <sub>2</sub> )                     | 1.5%  |
| Lime (CaO)                                      | 0.4%  |
| Magnesia (MgO)                                  | 0.4%  |
| Soda (Na <sub>2</sub> O)                        | 0.1%  |
| Potash (K <sub>2</sub> O)                       | 0.9%  |

| Physical Data (Typical)     |                                 |
|-----------------------------|---------------------------------|
| Maximum Service Temperature | 2300°F (1260°C)                 |
| Bulk Density                | 39 lb/ft³ (0.62 g/cm³)          |
| Modulus of Rupture          | 147 lb/in.² (1.0 MPa)           |
| Cold Crushing Strength      | 275 lb/in.² (1.9 MPa)           |
| Thermal Conductivity        | Btu ⋅in/hr ⋅ft² ⋅ °F (W/m ⋅ °C) |
| At 400°F (204°C)            | 1.46 (0.21)                     |
| At 750°F (399°C)            | 1.58 (0.23)                     |
| At 1100°F (593°C)           | 1.80 (0.26)                     |

Note: The test data shown are based on average results on production samples and are subject to normal variation on individual tests. The test data cannot be taken as minimum or maximum values for specification purposes. ASTM test procedures used when applicable.